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EXAMINER	
CHUO, TONY SHENG HSIANG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/795,952	KOMURA ET AL.	
	Examiner	Art Unit	
	Tony Chuo	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) *10 and 11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-9,12 and 13* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/10/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1-13 are currently pending. Claims 10 and 11 are withdrawn from further consideration as being drawn to a non-elected invention. The amended claims do overcome the previously stated 103 rejections. The 103 rejection of claim 5 is withdrawn because the Maeda reference does not qualify as prior art due to the earlier priority date of the present application. Therefore, upon further consideration, claims 1-4, 6-9, 12, and 13 are rejected under the following new 112 and 103 rejections. This action is made FINAL as necessitated by the amendment.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 1/10/08 was filed on 1/10/08. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "wherein said first and second reinforcing films are electrically conductive" is not supported by the specification. The reinforcing films disclosed in the specification are silicon films which are not electrically conductive.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badding et al (US 2001/0044041) in view of Narayanan et al (US 6680139).

The Badding reference discloses fuel cell "200" comprising: an array of fuel cells wherein each fuel cell includes an anode "16", a cathode "12", and an electrolyte sheet "10" in between the anode and cathode; an interconnect "14" that is an electrical conductor that is disposed between a pair of adjacent fuel cells and is not stacked on either of the adjacent fuel cells wherein the interconnect is electrically connected to the cathode of one of the adjacent fuel cell and extending in parallel to the cathode and is also electrically connected to the anode of the other of the adjacent fuel cell and extending in parallel to the anode, and wherein a portion of the electrolyte of the pair of

adjacent fuel cells is sandwiched between the interconnect (See paragraph [0030] and Figure 1B). It also discloses an interconnect that is separate and distinct from the anode and cathode, wherein the interconnect has an expansion made of the same material as the interconnect and is provided between the top and bottom portions of the interconnect (See Figure 1B and paragraph [0104]). It also discloses an interconnect "14" that is arranged in a substantially same plane with the anode "16" and the cathode "12" (See Figure 1B).

Examiner's note: Since the interconnect is in the same plane as the anode and cathode, it would also be in the same plane as the gas diffusion layers that are part of the anode and cathode. In addition, the top portion of the interconnect is construed as a first electrically conductive film, the bottom portion of the interconnect is construed as a second electrically conductive film, and the middle portion of the interconnect is construed as an expansion.

However, Badding et al does not expressly teach a porous insulating film wherein a plurality of power generating unit is positioned on top of the porous insulating film. The Narayanan reference discloses a porous insulating film "120" wherein a plurality of fuel cell elements "97","98","99" are positioned on top of the porous insulating film (See Figure 1B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding fuel cell to include a porous insulating film wherein a plurality of power generating unit is positioned on top of the porous insulating film in order to provide a substrate for supporting the fuel cells.

7. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (JP 2002-110215) in view of Narayanan et al (US 6680139).

The Suzuki reference discloses fuel cell comprising: an array of fuel cell elements wherein each fuel cell element includes a first electrode "62", a second electrode "64", and an electrolyte "60" in between the anode and cathode; a lead "68" that is an electrical conductor that is disposed between a pair of adjacent fuel cells and is not stacked on either of the adjacent fuel cells wherein the interconnect is electrically connected to the first electrode of one of the adjacent fuel cell and extending in parallel to the first electrode and is also electrically connected to the second electrode of the other of the adjacent fuel cell and extending in parallel to the second electrode, and wherein a portion of the electrolyte of the pair of adjacent fuel cells is sandwiched between the lead (See paragraphs [0008] and Drawing 8). It also discloses a lead that is arranged in a substantially same plane with the first and second electrodes (See Drawing 8). It also discloses a lead that is separate and distinct from the first and second electrodes (See Drawing 8). It also discloses a reactant gas supply passage "84 and a reactant gas discharge passage that extend through an end of the fuel cell (See Drawing 8 and paragraph [0008]). It also discloses a casing "72" & "76" containing the plurality of fuel cell elements (See Drawing 8).

Examiner's note: Since the lead is in the same plane as the first and second electrodes, it would also be in the same plane as the gas diffusion layers that are part of the first and second electrodes. In addition, the top portion of the lead is construed as a first electrically conductive film, the bottom portion of the lead is construed as a second

electrically conductive film, and the middle portion of the lead is construed as an expansion. It is inherent that the expansion is made of the same material as the first and second electrically conductive film in order to simplify the construction of the lead and to minimize the differences in the coefficient of thermal expansion of the materials of the high temperature fuel cell.

However, Suzuki et al does not expressly teach a porous insulating film wherein a plurality of power generating unit is positioned on top of the porous insulating film. The Narayanan reference discloses a porous insulating film "120" wherein a plurality of fuel cell elements "97","98","99" are positioned on top of the porous insulating film (See Figure 1B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki fuel cell to include a porous insulating film wherein a plurality of power generating unit is positioned on top of the porous insulating film in order to provide a substrate for supporting the fuel cells.

8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badding et al (US 2001/0044041) in view of Narayanan et al (US 6680139) as applied to claim 1 above, and further in view of Winsel et al (US 3770509).

However, the Badding et al as modified by Narayanan et al does not expressly teach a first or second electrically conductive film that is made of a resin and an electrically conductive material. The Winsel reference discloses electrically connecting two gas diffusion layers with an electrically conductive resin comprising a plastic base material and a metal or graphite power (See column 3, line 63 to column 4, line 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan fuel cell to include either a first or second electrically conductive film that is made of an electrically conductive resin in order to utilize a material that has high adhesive strength, electrical conductivity, and plastic flow.

9. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (JP 2002-110215) in view of Narayanan et al (US 6680139) as applied to claim 1 above, and further in view of Winsel et al (US 3770509).

However, the Suzuki et al as modified by Narayanan et al does not expressly teach a first or second electrically conductive film that is made of a resin and an electrically conductive material. The Winsel reference discloses electrically connecting two gas diffusion layers with an electrically conductive resin comprising a plastic base material and a metal or graphite power (See column 3, line 63 to column 4, line 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki/Narayanan fuel cell to include either a first or second electrically conductive film that is made of an electrically conductive resin in order to utilize a material that has high adhesive strength, electrical conductivity, and plastic flow.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badding et al (US 2001/0044041) in view of Narayanan et al (US 6680139) as applied to claim 1 above, and further in view of Nishiumi et al (US 2002/0187382).

However, Badding et al as modified by Narayanan et al does not expressly teach

a reactant gas supply passage and a reactant gas discharge passage that extends through an end of the fuel cell. The Nishiumi reference discloses a reactant gas supply passage "228" and a reactant gas discharge passage "229" that extend through an end of the fuel cell (See Figures 4 and paragraph [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan fuel cell to include a reactant gas supply passage and a reactant gas discharge passage that extend through an end of the fuel cell in order to able to supply and discharge the electrochemical cells with reactant gases.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badding et al (US 2001/0044041) in view of Narayanan et al (US 6680139) as applied to claim 1 above, and further in view of Jansing et al (US 5942348), Nishiumi et al (US 2002/0187382), and Richards (US 5547777).

However, Badding et al as modified by Narayanan et al does not expressly teach a pair of electrically insulating separators for sandwiching the power generation units. The Jansing reference discloses a first electrically insulating bipolar plate "30" and a second electrically insulating bipolar plate "30'" that sandwich the MEA "43" (See column 8, lines 8-16 and Figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan fuel cell to include a first and second electrically insulating separators for sandwiching the MEA unit in order to prevent an electrical short circuit between the power generation units.

However, Badding et al as modified by Narayanan et al and Jansing et al does not expressly teach a plurality of guide grooves that are formed on at least one of the separators on the surface opposite to a surface facing the power generation units for supplying a coolant along the separator; a reactant gas supply passage and a reactant gas discharge passage that extend through the fuel cells in a stacking direction of the fuel cells; and a seal member provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage. The Nishiumi reference discloses a cooling water passages "226" that are formed on at least one of the separator "218" on a surface opposite to a surface facing the membrane electrode assembly for supplying a coolant along the separator; a reactant gas supply passage "231" and a reactant gas discharge passage "231" that extend through the fuel cells in a stacking direction of the fuel cells; and a gasket provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage (See paragraph [0048],[0060] and Figures 4 and 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan/Jansing fuel cell to include a plurality of guide grooves that are formed on at least one of the separators on the surface opposite to a surface facing the power generation units for supplying a coolant along the separator; a reactant gas supply passage and a reactant gas

discharge passage that extend through the fuel cells in a stacking direction of the fuel cells; and a seal member provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage in order to regulate the temperature of the fuel cell and to simplify the structure by providing internal common manifolds for supplying and discharging the reactant gases.

However, Badding et al as modified by Narayanan et al, Jansing et al, and Nishiumi et al does not expressly teach a casing containing the fuel cells; and a coolant passage formed in a spacing between the casing and the plurality of fuel cells so that the coolant flows along a surface of the casing wherein the coolant passage is connected to the guide grooves of each of the fuel cells in the casing. The Richards reference discloses a cooling jacket "27" formed in a space between the housing "20" and the fuel cells "10" so that the coolant flows along a surface of the housing (See column 17, lines 26-30, column 18, lines 34-36, and Figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan/Jansing/Nishiumi fuel cell to include a casing containing the fuel cells; and a coolant passage formed in a spacing between the casing and the plurality of fuel cells so that the coolant flows along a surface of the casing wherein the coolant passage is connected to the guide grooves of each of the fuel cells in the casing in order to simplify the structure by using the space

between the housing and the fuel cells as an internal manifold for distributing the coolant.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (JP 2002-110215) in view of Narayanan et al (US 6680139) as applied to claim 1 above, and further in view of Jansing et al (US 5942348), Nishiumi et al (US 2002/0187382), and Richards (US 5547777).

However, Suzuki et al as modified by Narayanan et al does not expressly teach a pair of electrically insulating separators for sandwiching the power generation units. The Jansing reference discloses a first electrically insulating bipolar plate "30" and a second electrically insulating bipolar plate "30'" that sandwich the MEA "43" (See column 8, lines 8-16 and Figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki/Narayanan fuel cell to include a first and second electrically insulating separators for sandwiching the MEA unit in order to prevent an electrical short circuit between the power generation units.

However, Suzuki et al as modified by Narayanan et al and Jansing et al does not expressly teach a plurality of guide grooves that are formed on at least one of the separators on the surface opposite to a surface facing the power generation units for supplying a coolant along the separator; a reactant gas supply passage and a reactant gas discharge passage that extend through the fuel cells in a stacking direction of the fuel cells; and a seal member provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal

member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage. The Nishiumi reference discloses a cooling water passages "226" that are formed on at least one of the separator "218" on a surface opposite to a surface facing the membrane electrode assembly for supplying a coolant along the separator; a reactant gas supply passage "231" and a reactant gas discharge passage "231" that extend through the fuel cells in a stacking direction of the fuel cells; and a gasket provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage (See paragraph [0048],[0060] and Figures 4 and 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki/Narayanan/Jansing fuel cell to include a plurality of guide grooves that are formed on at least one of the separators on the surface opposite to a surface facing the power generation units for supplying a coolant along the separator; a reactant gas supply passage and a reactant gas discharge passage that extend through the fuel cells in a stacking direction of the fuel cells; and a seal member provided on the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the seal member separates the reactant gas supply passage and the reactant gas discharge passage from the coolant passage in order to regulate the temperature of the fuel cell and to simplify the structure by providing internal common manifolds for supplying and discharging the reactant gases.

However, Suzuki et al as modified by Narayanan et al, Jansing et al, and Nishiumi et al does not expressly teach a coolant passage formed in a spacing between the casing and the plurality of fuel cells so that the coolant flows along a surface of the casing wherein the coolant passage is connected to the guide grooves of each of the fuel cells in the casing. The Richards reference discloses a cooling jacket "27" formed in a space between the housing "20" and the fuel cells "10" so that the coolant flows along a surface of the housing (See column 17, lines 26-30, column 18, lines 34-36, and Figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki/Narayanan/Jansing/Nishiumi fuel cell to include a coolant passage formed in a spacing between the casing and the plurality of fuel cells so that the coolant flows along a surface of the casing wherein the coolant passage is connected to the guide grooves of each of the fuel cells in the casing in order to simplify the structure by using the space between the housing and the fuel cells as an internal manifold for distributing the coolant.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badding et al (US 2001/0044041) in view of Narayanan et al (US 6680139), Jansing et al (US 5942348), Nishiumi et al (US 2002/0187382), and Richards (US 5547777) as applied to claim 12 above, and further in view of Ide et al (JP 63-279578).

However, Badding et al as modified by Narayanan et al, Jansing et al, Nishiumi et al, and Richards does not expressly teach a seal member that extends along an entire width of the at least one of the separators on the surface opposite to the surface

facing the power generation units wherein the sealing member includes a bent portion that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing and the side surface of the at least one of the separators. The Ide reference discloses a gas separator "1" that includes a seal member "4" member that extends along an entire width of the at least one of the separators on the surface opposite to the surface facing the power generation units and a bent portion "6" that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing "5" and the side surface of the at least one of the separators "1" (See Abstract and Drawings 6 and 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Badding/Narayanan/Jansing/Nishiumi/ Richards fuel cell to include a seal member that extends along an entire width of the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the sealing member includes a bent portion that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing and the side surface of the at least one of the separators in order to improve the seal between the casing and the fuel cells.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (JP 2002-110215) in view of Narayanan et al (US 6680139), Jansing et al (US 5942348), Nishiumi et al (US 2002/0187382), and Richards (US 5547777) as applied to claim 12 above, and further in view of Ide et al (JP 63-279578).

However, Suzuki et al as modified by Narayanan et al, Jansing et al, Nishiumi et al, and Richards does not expressly teach a seal member that extends along an entire width of the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the sealing member includes a bent portion that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing and the side surface of the at least one of the separators. The Ide reference discloses a gas separator "1" that includes a seal member "4" member that extends along an entire width of the at least one of the separators on the surface opposite to the surface facing the power generation units and a bent portion "6" that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing "5" and the side surface of the at least one of the separators "1" (See Abstract and Drawings 6 and 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Suzuki/Narayanan/Jansing/Nishiumi/ Richards fuel cell to include a seal member that extends along an entire width of the at least one of the separators on the surface opposite to the surface facing the power generation units wherein the sealing member includes a bent portion that extends along a side surface of the at least one of the separators wherein the bent portion is interposed between the casing and the side surface of the at least one of the separators in order to improve the seal between the casing and the fuel cells.

Allowable Subject Matter

15. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Badding reference discloses fuel cell "200" comprising: an array of fuel cells wherein each electrochemical cell includes an anode "16", a cathode "12", and an electrolyte sheet "10" in between the anode and cathode; an interconnect "14" that is an electrical conductor that is disposed between a pair of adjacent fuel cells and is not stacked on either of the adjacent fuel cells wherein the interconnect is electrically connected to the cathode of one of the adjacent fuel cell and extending in parallel to the cathode and is also electrically connected to the anode of the other of the adjacent fuel cell and extending in parallel to the anode, and wherein a portion of the electrolyte of the pair of adjacent fuel cells is sandwiched between the interconnect (See paragraph [0030] and Figure 1B). However, Badding et al does not expressly teach a film having windows that is laminated on the porous insulating film such that at least one of the first and second electrodes of the power generation units are disposed in the windows.

Response to Arguments

16. Applicant's arguments with respect to claims 1-9, 12, and 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Chuo whose telephone number is (571)272-0717. The examiner can normally be reached on M-F, 7:00AM to 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC

/Jonathan Crepeau/

Primary Examiner, Art Unit 1795